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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,628	01/10/2005	Takahiro Yokota	122382	5590

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EXAMINER

ZANELLI, MICHAEL J

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 07/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/520,628	Applicant(s) YOKOTA, TAKAHIRO	
	Examiner Michael J. Zanelli	Art Unit 3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 9, 13, 16 and 17 is/are rejected.
- 7) ☒ Claim(s) 5-8, 10-12, 14, 15, 18 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/10/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This application has been examined. The preliminary amendment filed 1/10/05 has been entered. Claims 1-19 are pending.

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

3. The IDS filed 1/10/05 has been considered.

4. Claims 9 and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A. As per claims 9 and 13, the claims are unclear as to which structure(s) are performing the functions recited.

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-3 and 16 are rejected under 35 U.S.C. 102(b) as being anticipated by DE 10032340A (hereinafter DE '340).

A. As per claims 1 and 16, DE '340 discloses a vehicle steering apparatus (Fig. 1) comprising a steering input unit (3), automatic steering unit (11), a steering assist (21) and a controller (31) whereby steering control is performed to damp fluctuations in an operational force required of the driver which result from inversion of an actual turning

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direction of the steerable wheels, if it is determined that the turning direction is inverted through the automatic steering (paragraphs 12-20, 38-52).

B. As per claim 2, as above whereby a steering torque is detected, a target steering assist force is calculated on the basis of the steering torque, and the steering assist force generation unit is controlled at least on the basis of the target steering assist force (paragraphs 40-42).

C. As per claim 3, as above whereby a running state of a vehicle is estimated, a target automatic steering amount for stabilizing the running state of the vehicle by turning the steerable wheels is calculated if the running state of the vehicle is unstable, and the automatic steering unit is controlled at least on the basis of the target automatic steering amount (Figs. 2-4; paragraphs 40-54).

7. Claims 1-4 and 16-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Kojo et al. (6,041,887).

A. As per claims 1 and 16, Kojo discloses a vehicle steering apparatus (Fig. 1) comprising a steering input unit (10), automatic steering unit (40), a steering assist (24) and a controller (30) whereby steering control is performed to damp fluctuations in an operational force required of the driver which result from inversion of an actual turning direction of the steerable wheels, if it is determined that the turning direction is inverted through the automatic steering (col. 9, lines 11-23).

B. As per claims 2-4 and 17, as above whereby means are provided to detect steering torque (28) and the running state of the vehicle to determine target values for controlling

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the steering (col. 4, lines 37-60; col. 5, lines 23-58). The steering assist force is controlled based on determining an inversion of the steering angle (col. 9, lines 11-23).

8. Claims 5-8, 10-12, 14, 15, 18 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

9. Claims 9 and 13 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited documents are of general interest.

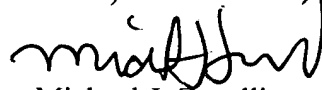
11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Zanelli whose telephone number is (571) 272-6969.

The examiner can normally be reached on Monday-Thursday 9:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas G. Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Michael J. Zanelli
Primary Examiner
Art Unit 3661

July 20, 2006